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## **ABSTRACT**

A method and system for quantification of strain imaging is disclosed. The method and system comprises performing a motion analysis on the at least two regions of interest. The method and system further includes providing a strain estimate for each of the at least two regions of interest and comparing the strain estimates of each of the at least two regions to quantify the strain for the at least two regions of interest. A system and method in accordance with the present invention provides for strain quantification based on conventional B-mode images. Using this technique, the strain of regions of interest (ROI) defined by users can be determined and quantitative comparisons can be effectively made in real time. The strain quantification can be used to determine tissue's properties and can potentially be applied in breast imaging as well as cardiac imaging.